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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/214,865	01/14/1999	YOSHIHIKO TAKISHITA	Q52837	8105

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EXAMINER

KIM, PAUL L

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 04/11/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/214,865

Applicant(s)

TAKISHITA, YOSHIHIKO

Examiner

Paul L Kim

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim 20 cannot be dependent on multiple dependent claim 19. See MPEP § 608.01(n). Accordingly, the claim 20 not been further treated on the merits.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 4-7 and 17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With regard to claims 4, 6, and 17, "determining whether or not an *abnormal point* is contained in said *specific* ultrasonic inspection system", is indefinite for not specifically pointing out which part of the inspection system or which circuit is to be tested for abnormal functionality.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-45 uses the term "data". However, it is not clear whether the data is data from inspecting a test piece or data from testing one of its components such as the probe or waveform circuit.

With regard to the term "component" in claim 15, it is not known whether that term refers to the probe or a specific part of the inspection system.

With regard to claim 16, line 8, it is not known what is meant by the term, "at least" in the phrase.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

7. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

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8. Claims 1-3, 14, 15, 21, and 24-26 are rejected under 35 U.S.C. 102(e) as being anticipated by Wood et al.

With regard to claims 1 and 15, Wood et al teaches an ultrasonic inspection system comprising of multiple ultrasonic system each containing a probe (fig. 1, part 12 & fig. 15), system body (fig. 1, part 10), host computer (fig. 1, part 100 & fig. 15, part 242, 234), a transmission line (fig. 1, part 42), and data storage section (col. 13, lines 35-40).

With regard to claim 2, Wood et al teaches the data being a specimen data (col. 3, lines 1-3) and the host computer having determination means (fig. 1, part 102).

With regard to claim 3, Wood et al teaches at least one of the inspection systems comprising a determination means (fig. 2, part 28).

With regard to claim 14, Wood et al teaches a probe data reception means for receiving data from a specific inspection system (fig. 1, part 132).

With regard to claim 21, Wood et al teaches the system transmitter having an ultrasonic probe data management function for transmitting and receiving ultrasonic signals (fig. 2, part 18) characterized by an external storage medium (fig. 2, part 24).

With regard to claim 24, Wood et al teaches an ultrasonic inspection system comprising a storage section (fig. 2, part 24).

With regard to claims 20 and 25, Wood et al teaches an ultrasonic inspection system comprising a display (fig. 1, part 26).

With regard to claim 26, Wood et al teaches an inspection management system with means to transmit and receive signals (fig. 2, part 18), inspect a specimen based

on these signals (fig. 2, part 28), and store these signals in a storage device (fig. 2, part 24).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 8, 10, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al in view of Falsetti et al.

With regard to claims 8, 10, 11, and 13, Wood et al does not teach the host computer of the ultrasonic inspection system comprising a reception level comparison means. Falsetti et al teaches an ultrasonic inspection system that comprises a reception level means for comparing an average of continuous reception level data with a predetermined reception level setup value (col. 3, lines 46-62). It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Wood et al, so that the inspection system comprises a reception level comparison means, as taught by Falsetti et al, in order to determine the data trends of the DUT over a period of time.

11. Claims 9, 12, 22, 23, 27, and 28-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wood et al in view of Shinomura et al.

With regard to claims 9 and 12, Wood et al does not teach the inspection system comprising a change comparison means. Shinomura et al et al teaches an ultrasonic inspection system comprising a change comparison means that compares recent data with its immediately preceding data of an ultrasonic probe (see Summary). It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Wood et al, so that the inspection system comprises a change comparison means, as taught by Shinomura et al, in order to determine probe wear condition over a period of time.

With regard to claims 22 and 27, Wood et al does not teach probe data being stored at manufacture time and data being updated each time the probe is inspected. Shinomura et al teaches an ultrasonic probe inspection means in which factory data is stored (col. 11, lines 59-67). It would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Wood et al, so that the probe characteristic data can be stored during factory time and updated periodically, as taught by Shinomura et al, in order to determine probe wear condition over a period of time.

With regard to claims 23 and 28, Wood et al does not teach executing inspection for receiving predetermined characteristic of the ultrasonic probe and storing the data in an external storage medium. Shinomura et al teaches predetermined ultrasonic probe data being stored in a storage unit (col. 11, lines 59-65). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Wood et al, so that predetermined probe data can be stored in a storage unit in order to be able to determine wear characteristics of the ultrasonic probe over a period of time.

With regard to claims 29-32, Wood et al does not teach the ultrasonic system retrieving probe characteristics data and storing the data. Shinomura et al teaches an ultrasonic inspection system having an ultrasonic probe data management function for transmitting and receiving ultrasonic signals (col. 3, lines 19-20), with the system comprising a computer connected to one or more inspection systems (fig. 2), probe data collection means (fig. 2, part 114b), and a storage section (fig. 2, part 114a). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Wood et al, so that probe data can be collected and stored in order to be able to determine wear characteristics of the ultrasonic probe over a period of time.

With regard to claims 34, 39, 40, Wood et al teaches an ultrasonic inspection system comprising a storage section (fig. 2, part 24).

With regard to claims 33, 35, 36, 37, 38, and 41-45 Wood et al teaches a display unit to output visual inspection information (fig. 1, part 26).

Response to Arguments

12. Applicant's arguments filed February 2, 2002 have been fully considered but they are not persuasive.

With regard to the 35 U.S.C. 112 rejection in claims 4-7 and 16, the applicant points out that the specification describes the self-inspection of the ultrasonic probe in detail. However, the specification still does not support the claim language, "determining whether or not an abnormal point is contained in said specific *ultrasonic inspection*

system". There is no detail in the specification that describes the determination of an abnormal point of the inspection system as a whole.

With regard to claims 1-3, 14, 21, 24, 25, 31, and 33-45, the applicant argues that Wood et al does not teach the data storage section being part of the host system. However, it is the Examiner's position that Wood et al teaches the data storage section as part of the host or management system (col. 13, lines 35-40).

With regard to claims 26, 29, and 30, applicant argues that the ultrasonic probe in Wood et al's invention is not provided with a data storage device. However, it is the Examiner's position that Wood et al teaches a storage device provided to the probes of ultrasonic systems (fig. 1, parts 10 & 24 and col. 13, lines 39-40).

With regard to claims 22, 23, 27, and 28, applicant argues that Wood et al in view of Shinomura et al does not teach a storage medium for storing the probe data. However, Shinomura et al does teach a storage medium for storing the probe data (col. 11, lines 59-60).

Allowable Subject Matter

13. Claims 4-7 and 16-19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

The following is a statement of reasons for the indication of allowable subject matter: With regard to claims 4-7 and 16-19, the prior art does not teach performing a test by collecting data with the probe connected to the ultrasonic system, performing

another test with the probe disconnected, and then diagnosing the system based on the collected data.

Conclusion

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Kim whose telephone number is 703-305-7468. The examiner can normally be reached on Monday-Friday 10:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 703-308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-9722 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

PK
April 3, 2002


MARC S. HOFF
SUPERVISORY PATENT EXAMINER
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